Detailed Data Tables: Men Who Have Sex with Men (MSM)

Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH). Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases who were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2012, this resulted in the removal of 2,924 HIV/AIDS cases, of which 808 have died and 2,116 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location of diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS surveillance system. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that all previous HIV/AIDS fact sheets, data reports and presentations include cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the Massachusetts Department of Public Health (MDPH) HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

Table 1. People diagnosed with HIV infection by gender and exposure mode: Massachusetts¹, 2008–2010²

	Male	9	Fema	le	Tota	ıl
Exposure Mode:	N	%	N	%	N	%
Male-to-male sex (MSM)	789	54%	N/A	N/A	789	40%
Injection drug use (IDU)	122	8%	65	12%	187	9%
MSM/IDU	56	4%	N/A	N/A	56	3%
Heterosexual sex	77	5%	174	32%	251	13%
Other	12	1%	7	1%	19	1%
Total undetermined/other	397	27%	295	54%	692	35%
Pres. HTSX ³	N/A	N/A	219	40%	219	11%
 Undetermined⁴ 	397	27%	76	14%	473	24%
Total	1,453	100%	541	100%	1,994	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Pres. HTSX = Presumed Heterosexual Sex; N/A = Not Applicable

stigma.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

Note: The category of "presumed heterosexual" is used in Massachusetts to re-assign

females who are reported with an exposure of heterosexual sex, but only with a partner of unknown HIV status or behavioral risk. Massachusetts uses the category of presumed heterosexual to distinguish these female cases from other undetermined cases about which we know less. Prior to January 1, 2011, the presumed heterosexual category was also used to report HIV data in males. The rationale for the application of the presumed heterosexual exposure mode category to females only has been addressed in the MDPH OHA report "Intersecting Risks: HIV Infection among Heterosexual Women and Men in Massachusetts." (2010) http://www.mass.gov/Eeohhs2/docs/dph/aids/intersecting_risks.pdf . Nationally, the Centers for Disease Control and Prevention categorize "presumed heterosexual" cases as "no identified risk" (NIR). As such, comparisons of the presumed heterosexual category cannot be made to national data. Caution should be used in interpreting data for presumed heterosexual, as it is still not clear what the exposure risk was for females in this category. Although a person may not report other risk behaviors, such as injection drug use to a health care provider, it does not exclude the possibility that an individual has experienced these other risks. There are many barriers to disclosing HIV risk behaviors in the health care setting such as a limited patient-provider relationship or

reported in Massachusetts.

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

Table 2. People living with HIV/AIDS on December 31, 2011 by gender and exposure mode: Massachusetts¹

	Male	9	Fema	le	Tota	ıl
Exposure Mode:	N	%	N	%	N	%
Male-to-male sex (MSM)	6,498	50%	N/A	N/A	6,498	36%
Injection drug use (IDU)	2,562	20%	1,301	25%	3,863	21%
MSM/IDU	605	5%	N/A	N/A	605	3%
Heterosexual sex	769	6%	1,844	35%	2,613	14%
Other	231	2%	189	4%	420	2%
Total undetermined/other	2,252	17%	1,919	37%	4,171	23%
Pres. HTSX ²	N/A	N/A	1,520	29%	1,520	8%
 Undetermined³ 	2,252	17%	399	8%	2,651	15%
Total	12,917	100%	5,253	100%	18,170	100%

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² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

Pres. HTSX = Presumed Heterosexual Sex; N/A = Not Applicable

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

Table 3. Percent of people diagnosed with HIV infection by Health Service Region (HSR)¹ and exposure mode: Massachusetts², 2008–2010³

HSR	MS	SM	IC	υ		SM/ DU	НТ	SX	Ot	her	Pre HTS	_	Und	det. ⁵	Tot al
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Boston	259	45%	38	7%	15	3%	63	11%	7	1%	61	11%	127	22%	570
Central	47	27%	20	12%	 7	7	32	19%	 7	 ⁷	28	16%	36	21%	172
Metrowest	151	46%	17	5%	 7	7	32	10%	 7	 ⁷	37	11%	78	24%	330
Northeast	119	34%	21	6%	 7	7	46	13%	 7	 ⁷	44	13%	110	31%	351
Southeast	122	42%	23	8%	9	3%	44	15%	0	0%	29	10%	61	21%	288
Western	81	39%	32	15%	 7	7	25	12%	 7	7	19	9%	49	23%	210
Prison ⁶	10	14%	36	49%	5	7%	9	12%	 7	 ⁷	 ⁷	7	12	16%	73
Total	789	40%	187	9%	56	3%	251	13%	19	1%	219	11%	473	24%	1994

Reflects the health service region of a person's residence at the time of report (not necessarily current residence). See Epidemiologic Profile General Appendices, Health Service Region Maps, available at

⁴ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex; Undet. = Undetermined

http://www.mass.gov/dph/aids/research/profile2005/app5 hrs maps.pdf for configuration of health service regions.

Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

⁵ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with

no determined risk, and those lost to follow-up.

6 HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV/AIDS while in a correctional facility

Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

Table 4. Percentage distribution of people living with HIV/AIDS on December 31, 2011 by Health Service Region (HSR)¹ and exposure mode: Massachusetts²

HSR	MS	M	ID	U	MS ID		HT	SX	Oth	ner	Pre HTS	_	Und	et. ⁴	Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Boston	2,714	47%	787	14%	190	3%	722	13%	110	2%	445	8%	755	13%	5,723
Central	373	23%	465	29%	47	3%	300	19%	47	3%	167	10%	196	12%	1,595
Metrowest	1,004	39%	316	12%	73	3%	350	14%	70	3%	269	11%	476	19%	2,558
Northeast	870	31%	519	18%	81	3%	441	16%	72	3%	306	11%	541	19%	2,830
Southeast	974	39%	544	22%	80	3%	377	15%	58	2%	164	7%	305	12%	2,502
Western	495	25%	595	30%	67	3%	367	18%	63	3%	159	8%	262	13%	2,008
Prison⁵	68	7%	636	67%	67	7%	56	6%	0	0%	10	1%	116	12%	953
Total	6,498	36%	3,863	21%	605	3%	2,613	14%	420	2%	1,520	8%	2,651	15%	18,170

¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence). See Epidemiologic Profile General Appendices, Health Service Region Maps, available at

http://www.mass.gov/dph/aids/research/profile2005/app5 hrs maps.pdf for configuration of health service regions.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁵ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV/AIDS while in a correctional facility. These data do not reflect current incarceration status.

Table 5. Ten cities/towns¹ in Massachusetts with the highest proportion of Male-to-Male Sex (MSM) as primary reported exposure mode among HIV infection diagnoses (HIV Dx): 2008–2010²

Rank	City/Town	Number of HIV Dx among	Percent of Total
		MSM	HIV Dx
1	Provincetown	34	94.4%
2	Everett	12	50.0%
3	Somerville	16	48.5%
4	Cambridge	25	48.1%
5	Quincy	10	47.6%
6	Boston	244	45.5%
7	Lynn	13	31.0%
8	Springfield	29	29.9%
9	Malden	10	29.4%
10	Waltham	10	27.0%

¹ Among cities/towns with over 20 reported HIV Infection diagnoses in the years 2008–2010. Note: reflects the city/town of a person's residence at the time of report (not necessarily current residence). People diagnosed while at a correctional facility are not included.
² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999

Table 6. Males diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts¹, 2001–2010²

	MS	5M	ID	U	MSI IDU		НТ	SX	Oth	er	Unde min	_	To- tal
	N	%	N	%	N	%	N	%	N	%	N	%	N
2001	304	44%	130	19%	30	4%	71	10%	6	1%	145	21%	686
2002	324	45%	133	19%	29	4%	60	8%	5	1%	163	23%	714
2003	307	49%	96	15%	29	5%	43	7%	10	2%	144	23%	629
2004	289	46%	99	16%	21	3%	48	8%	5	1%	172	27%	634
2005	336	53%	87	14%	23	4%	32	5%	0	0%	159	25%	637
2006	330	58%	50	9%	4	4	42	7%	4	4	125	22%	567
2007	268	54%	56	11%	4	4	26	5%	4	4	125	25%	497
2008	276	54%	44	9%	26	5%	27	5%	7	1%	127	25%	507
2009	278	57%	33	7%	4	4	26	5%	4	4	135	28%	489
2010	235	51%	45	10%	4	4	24	5%	4	4	135	30%	457

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/12

Table 7. *Males* diagnosed with HIV infection by exposure mode and race/ethnicity: Massachusetts¹, 2008–2010²

	MS	SM	ID	U	MS ID		нт	SX	Otl	ner	Und min	eter- ed ³
Race/ Ethnicity:	N	%	N	%	N	%	N	%	N	%	N	%
White NH Black NH Hispanic/Latino API Other/Und. Total	495 121 141 ⁴ ⁴ 789	63% 15% 18% ⁴ ⁴ 100%	29 27 63 ⁴ ⁴	24% 22% 52% ⁴ ⁴ 1 00%	39 7 9 ⁴ ⁴ 56	70% 13% 16% ⁴ ⁴ 1 00%	9 36 31 ⁴ ⁷	12% 47% 40% ⁴ ⁴ 1 100%	0 7 5 0 0	0% 58% 42% 0% 0% 100%	99 177 103 ⁴ ⁴ 397	25% 45% 26% ⁴ ⁴ 100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

NH = Non-Hispanic, API = Asian/Pacific Islander, Und. = Undetermined

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

Table 8. *Males* living with HIV/AIDS on December 31, 2011 by exposure mode and race/ethnicity: Massachusetts¹

	MS	SM	ID	U	MS ID		нт	SX	Otl	her		eter- ied ²
Race/ Ethnicity:	N	%	N	%	N	%	N	%	N	%	N	%
White NH Black NH Hispanic/Latino API Other/Und. Total	4,623 843 885 122 25 6,498	71% 13% 14% 2% <1% 100%	788 617 1,137 14 6 2,562	31% 24% 44% 1% <1%	372 107 119 ³ ³	61% 18% 20% ³ ³	144 353 258 ³ ³	19% 46% 34% ³ ³	76 87 67 ³ ³	33% 38% 29% ³ ³	592 1,052 526 71 11 2,252	26% 47% 23% 3% <1% 100%

Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in

NH = Non-Hispanic, API = Asian/Pacific Islander, Und. = Undetermined

Massachusetts.

² Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

3 Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

Table 9. *Males* diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts¹, 2008–2010²

	<′	13	13 t	o 24	25 t	o 29	30 t	o 34	35 t	o 39	40 t	o 44	45 t	o 49	50 t	o 54	55 to	59	60)+
Exposure Mode	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MSM	0	0%	123	75%	113	66%	99	57%	98	54%	126	56%	118	48%	61	42%	28	41%	23	34%
IDU	0	0%	4	4	9	5%	14	8%	20	11%	12	5%	22	9%	23	16%	13	19%	7	10%
MSM/IDU	0	0%	7	4%	11	6%	13	7%	5	3%	8	4%	6	2%	5	3%	0	0%	4	4
HTSX	0	0%	4	4	8	5%	11	6%	8	4%	14	6%	14	6%	11	8%	4	4	6	9%
Other	10	100%	4	4	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	4	4	4	4
Undetermined ³	0	0%	28	17%	29	17%	37	21%	51	28%	67	30%	84	34%	45	31%	26	38%	30	45%
Total	10	100%	165	100%	170	100%	174	100%	182	100%	227	100%	244	100%	145	100%	69	100%	67	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex;

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

Table 10. White (non-Hispanic) *males* diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts¹, 2008–2010²

	<1	3	13 t	o 24	25 t	o 29	30 to	o 34	35 t	o 39	40 t	o 44	45 t	o 49	50 t	o 54	55 to	59	60)+
Exposure Mode	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MSM	0	0%	51	86%	58	79%	51	73%	66	72%	90	76%	93	72%	47	69%	22	73%	17	53%
IDU	0	0%	0	0%	4	4	4	4	6	7%	4	4	6	5%	7	10%	4	4	4	4
MSM/IDU	0	0%	4	4	10	14%	9	13%	5	5%	6	5%	4	4	4	4	0	0%	4	4
HTSX	0	0%	4	4	0	0%	4	4	0	0%	4	4	4	4	4	4	4	4	4	4
Other	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Undetermined ³	0	0%	5	8%	4	4	6	9%	15	16%	17	14%	26	20%	11	16%	4	4	11	34%
Total	0	0%	59	100%	73	100%	70	100%	92	100%	118	100%	129	100%	68	100%	30	100%	32	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex;

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

Table 11. Black (non-Hispanic) *males* diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts¹, 2008–2010²

	<	13	13 t	o 24	25 t	o 29	30 t	o 34	35 t	o 39	40 t	o 44	45 t	o 49	50 t	o 54	55 to	59	60)+
Exposure Mode	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MSM	0	0%	36	69%	25	60%	15	41%	8	25%	12	24%	11	19%	9	19%	4	4	4	4
IDU	0	0%	0	0%	4	4	0	0%	4	4	4	4	6	11%	6	13%	7	25%	4	4
MSM/IDU	0	0%	4	4	4	4	0	0%	0	0%	4	4	4	4	4	4	4	4	0	0%
HTSX	0	0%	4	4	4	4	8	22%	4	4	6	12%	9	16%	4	4	0	0%	4	4
Other	7	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Undetermined ³	0	0%	14	27%	13	31%	14	38%	19	59%	28	57%	30	53%	26	55%	19	68%	14	58%
Total	7	100%	52	100%	42	100%	37	100%	32	100%	49	100%	57	100%	47	100%	28	100%	24	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex;

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

Table 12. Hispanic/Latino *males* diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts, 2008–2010

	<1	3	13 to	o 24	25 t	o 29	30 t	o 34	35 t	o 39	40 t	o 44	45 t	o 49	50 t	o 54	55 to	59	60	0+
Exposure Mode	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MSM	0	0%	32	68%	25	52%	25	45%	18	36%	21	40%	11	22%	4	4	4	4	4	4
IDU	0	0%	4	4	7	15%	9	16%	13	26%	7	13%	10	20%	10	37%	4	4	4	4
MSM/IDU	0	0%	4	4	0	0%	4	4	0	0%	4	4	4	4	4	4	0	0%	0	0%
HTSX	4	4	4	4	6	13%	4	4	4	4	5	9%	4	4	6	22%	4	4	4	4
Other	0	0%	4	4	0	0%	0	0%	0	0%	4	4	0	0%	0	0%	0	0%	0	0%
Undetermined ³	4	4	7	15%	10	21%	15	27%	15	30%	19	36%	24	48%	6	22%	4	4	5	56%
Total	0	0%	47	100%	48	100%	55	100%	50	100%	53	100%	50	100%	27	100%	10	100%	9	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex;

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

Table 13. *Males* diagnosed with HIV infection by mode of exposure and place of birth: Massachusetts¹, 2008–2010²

	M	SM	10	ου		SM/ DU	H.	TSX	0	ther		deter- ned ³
United States	628	80%	76	62%	48	86%	26	34%	8	67%	203	51%
PR/US Depen. ⁴	29	4%	38	31%	⁵	⁵	12	16%	⁵	⁵	26	7%
Non-US	132	17%	8	7%	⁵	⁵	39	51%	⁵	⁵	168	42%
Total	789	100%	122	100%	56	100%	77	100%	12	100%	397	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Table 14. *Males* living with HIV/AIDS on December 31, 2011 by mode of exposure and place of birth: Massachusetts¹

	MS	SM	ID	U		SM/ DU	H	гѕх	Ot	her	Unde min	_
United States PR/US Depen. ⁴ Non-US	5,450 186 862	84% 3% 13%	1,673 775 114	65% 30% 4%	497 70 38	82% 12% 6%	336 117 316	44% 15% 41%	190 16 25	82% 7% 11%	1,020 144 1.088	45% 6% 48%
Total	6,498	100%	2,562	100%	605	100%	769	100%	231	100%	2,252	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

⁴ Ninety-nine percent of people diagnosed with HIV infection from 2008–2010 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands and <1% were born in Guam.

⁵ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); Data as of 1/1/12

² Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

³ Ninety-six percent of people living with HIV/AIDS who were born in a US Dependency were born in Puerto Rico, <1% were born in the US Virgin Islands, and 3% were born in an unknown dependency.

Table 15. MSM¹ diagnosed with HIV infection by race/ethnicity and place of birth: Massachusetts², 2008–2010

	White Non-H	lispanic	Black Non-F	lispanic	Hispanic/Latino	
Place of Birth	N	%	N	%	N	%
United States PR/US Depen. ³ Non-US Total	457 ⁴ ⁴ 495	92% ⁴ ⁴ 100%	101 ⁴ ⁴ 121	83% ⁴ ⁴ 100%	56 27 58 141	40% 19% 41% 100%

Includes primary reported mode of exposure as male-to-male sex (MSM)

Table 16. MSM¹ living with HIV/AIDS on December 31, 2011 by race/ethnicity and place of birth: Massachusetts²

	White Non-H	lispanic	Black Non-H	lispanic	Hispanic/Latino	
MSM	N	%	N	%	N	%
US PR/US Depen. ³ Non-US Total	4,350 ⁴ ⁴ 4,623	94% ⁴ ⁴ 100%	709 ⁴ ⁴ 843	84% ⁴ ⁴ 100%	322 174 389 885	36% 20% 44% 100%

Includes primary reported mode of exposure as male-to-male sex (MSM)

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

³ PR/US Depen. = Puerto Rico/US Dependency; 99% of people diagnosed with HIV infection from 2008–2010 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands and <1% were born in Guam.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); Data as of 1/1/12

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

³ PR/US Depen. = Puerto Rico/US Dependency; 96% of people living with HIV/AIDS who were born in a US Dependency were

born in Puerto Rico, <1% were born in the US Virgin Islands, and 3% were born in an unknown dependency.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); Data as of 1/1/12

Technical Notes:

Tables 17–20 include data reported by Massachusetts residents through anonymous telephone interviews from 2001 to 2010. This ongoing random-digit-dial telephone survey, the Behavioral Risk Factor Surveillance System (BRFSS), covers a broad range of topic areas (including risk related to sexual activity) and is part of a CDC-funded national survey program.

Table 17. Percent of males ages 18–64 ¹ years by sex of
sexual partner(s) during the past 12 months: Massachusetts,
2001–2010

Mal	es	ages	: 1	8-	64
-----	----	------	-----	----	----

Year	Same-Sex/		Ν
rear	Both Sexes	Opposite Sex Only	
2001	4.3%	95.7%	1,528
2002	8.5%	91.5%	952
2003	7.2%	92.8%	894
2004	9.4%	90.6%	977
2005	4.9%	95.1%	834
2006	5.4%	94.6%	1,217
2007	6.5%	93.6%	841
2008	5.2%	94.8%	1,305
2009	5.9%	94.1%	992
2010	6.1%	93.9%	1,010

¹ Sexually active in past year

Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS)

Table 18. Condom use at last sexual encounter¹ among males ages 18–64² years reporting same-sex partner (or opposite- and same-sex partners)³: Massachusetts, 2001–2010

Year	Used Condom (%)	Did not Use Condom (%)	Total (N)⁴
2001	37.5%	62.5%	64
2002	46.0%	54.0%	81
2003	39.0%	61.0%	63
2004	41.8%	58.2%	91
2005	55.6%	44.4%	39
2006	46.9%	53.1%	56
2007	31.7%	68.3%	54
2008	34.4%	65.6%	68
2009	31.4%	68.6%	59
2010	44.3%	55.7%	62

¹ Includes oral, vaginal, or anal sex (with either a male or female partner) but not masturbation

Note: Caution should be used in interpreting these results as the effective sample size is small and confidence intervals are wide. There are no significant differences between any years in the percent who used a condom at last intercourse

Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2001–2010

Table 19. Percent of males ages 18–64¹ years reporting same-sex partner (or opposite- and same-sex partners)² by race/ethnicity: Massachusetts, 2009–2010

Race/Ethnicity:	Males Reporting Same-Sex Partner			
	N	%		
White (Non-Hispanic) Black (Non-Hispanic)	1,665 105	4.2% 1.9%		
Hispanic/Latino Asian/Pacific Islander	144 43	9.9% 1.6%		
Other/Undetermined Total	41 2,028	1.2% 4.4%		
10 " "				

Sexually active in past year

² Sexually active in past year

³ During the past 12 months

⁴ Annual number of male respondents reporting same sex partner

² During the past 12 months

Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2009–2010

%

88.4%

5.7%

5.9%

Table 20. Number of sexual partners in the past year and condom use at last sexual encounter among males ages 18-64¹ reporting same-sex partner (or opposite- and same-sex partners)² compared to male respondents reporting only opposite-sex partner² by: Massachusetts, 2009–2010

Males Reporting Same-Sex Partner or **Males Reporting Only Opposite-Sex Partner** Opposite- and Same-**Sex Partners** Number of Sexual % 66.8% 18.6% 3 or more partners 14.7%

Total N	115	1,888
Condom Use:	%	%
Yes	37.7%	25.0%
Yes No	62.3%	75.0%
Total N	121	1,901

Sexually active in past year

Partners:

1 partner

2 partners

² During the past 12 months

Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2009–2010

Technical Notes:

Tables 21–23 include data reported by students in randomly selected Massachusetts public high schools every odd year from 1993 to 2011. This anonymous survey, the Youth Risk Behavior Survey (YRBS), is administered by the Massachusetts Department of Elementary and Secondary Education in collaboration with the Centers for Disease Control and Prevention and focuses on risk behaviors that may affect the health and/or safety of high school students.

Table 21. Percentage of sexually active male respondents by sex of sexual partner(s) and year: Massachusetts Youth Risk Behavior Survey, 1997–2011

	Same- Both S		Opposi	te-Sex
Year	Total N ²	%	Total N ²	%
1997	69	6.6%	941	93.4%
1999	89	7.0%	1,169	93.0%
2001	63	5.1%	1,080	94.9%
2003	59	6.1%	931	93.9%
2005	79	8.0%	881	92.0%
2007	70	8.0%	843	92.0%
2009	70	7.5%	802	92.5%
2011	66	7.5%	743	92.5%

¹ A random sample of high schools is selected for participation each year, data presented do not represent cohorts followed over time

² Total N = total number of respondents by sex of partner (unweighted). The number of respondents for each question varies from year to year

Data Source: Massachusetts Department of Elementary and Secondary Education, Youth Risk Behavior Survey (YRBS), 1997–2011

Table 22. Sexual behavior as reported among male respondents, Youth Risk Behavior Survey (YRBS): Massachusetts, 2011 **Sex of Partner**

	Opposi	te-Sex	Same-Sex/ Both Sexes	
By Behavior:	Total N ²	% ¹	Total N ²	% ¹
Ever had sexual intercourse ³	669	77.4%	50	70.3%
Sexual intercourse before age 13	666	9.9%	50 ⁵	18.8% ⁵
4 or more lifetime sexual intercourse partners	663	21.8%	49 ⁵	36.7%
4 or more sexual intercourse partners in last 3 months	666	4.0%	50 ⁵	14.6% ⁵
Alcohol/drugs used at last intercourse ⁴	353	27.4%	24 ⁵	56.4%
Condom used at last intercourse ⁴	346	65.8%	24 ⁵	43.9%
Ever been diagnosed with any STD	732	2.1%	66 ⁵	4.8% 5
Ever injected illegal drugs	741	3.0%	64 ⁵	14.6% ⁵

 ^{1 % =} percent of total responding "yes" to specified question
 2 N = total number of respondents (unweighted) by sex of partner for each question. The number of respondents for each question varies because some survey participants do not answer all questions

3 Among males who reported any sexual contact with opposite sex partner, same sex partner, or both

4 Among males reporting sexual intercourse in the past three months

5 This estimate may be unreliable due to a Relative Standard Error of greater than 30%, interpret with caution

Data Source: Massachusetts Department of Elementary and Secondary Education, Youth Risk Behavior Survey (YRBS),

Table 23. Percentage of Massachusetts Youth Risk Behavior Survey (YRBS) male respondents reporting condom use at last sexual intercourse¹ by year and sex of partner: Massachusetts, 1993–2011

	Opposite	e-Sex	Same-S Both Se		Total		
Year	Total N ² %		Total N ² %		Total N ²	%	
1993	384	58.5%	24	42.3%	409	57.4%	
1995	519	60.3%	28	40.0%	623	59.9%	
1997	480	65.4%	34	45.5%	517	64.2%	
1999	542	64.4%	44	39.1%	589	62.6%	
2001	506	63.6%	27	18.5%	553	61.6%	
2003	395	62.0%	27	29.6%	424	60.3%	
2005	403	72.7%	36	56.6%	442	71.6%	
2007	392	65.0%	27	38.5%	419	63.4%	
2009	367	68.0%	41	47.0%	409	65.7%	
2011	346	65.8%	24	43.9%	373	64.5%	

¹ Among youth reporting sexual intercourse in the past three months

Table 24. Reported infectious syphilis cases that were among men who have sex with men (MSM):
Massachusetts, 2001–2011

Year	Number of Cases among MSM	Total Number of Cases	Proportion of Cases among MSM				
2001	52	105	50%				
2002	117	208	56%				
2003	178	260	68%				
2004	146	209	70%				
2005	159	222	72%				
2006	156	218	71%				
2007	184	268	69%				
2008	302	369	82%				
2009	293	377	78%				
2010	382	464	82%				
2011	363	500	73%				
Data Source: I	MDPH Division of STD Prevent	tion					

² Total N = total number of respondents by sex of partner (unweighted). The number of respondents for each question varies from year to year.

Data Source: Massachusetts Department of Elementary and Secondary Education, Youth Risk Behavior Survey (YRBS), 1993–2011

Table 25. Reported infectious syphilis cases among men who have sex with men by HIV status and year of diagnosis: Massachusetts, 2001–2011

			HIV-Negat	ive/	
	HIV-Posit	ive	Unknown Ser	Total	
Year	N	%	N	%	N
2001	6	12%	46	88%	52
2002	49	42%	68	58%	117
2003	73	41%	105	59%	178
2004	58	40%	88	60%	146
2005	83	52%	76	48%	159
2006	74	47%	82	53%	156
2007	89	48%	95	52%	184
2008	124	41%	178	59%	302
2009	119	41%	174	59%	293
2010	147	38%	235	62%	382
2011	151	42%	212	58%	363
Data Source: MDPL	I Division of STD Prevention	<u> </u>			
Data Source. MDF1	Division of STD Flevention	I			

Table 26. Reported AIDS cases by exposure mode and year of diagnosis: Massachusetts, selected years, 1985–2009¹

	MSM IDU		MSM/ IDU HTSX			SX	Other		Pres. HTSX ²		Undeter- mined ³		Total		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
1985	140	62%	33	15%	11	5%	8	4%	12	5%	7	3%	14	6%	225
1990	459	44%	339	32%	43	4%	73	7%	55	5%	16	2%	65	6%	1,050
1995	411	31%	540	41%	62	5%	158	12%	33	2%	31	2%	91	7%	1,326
2001	169	24%	199	29%	29	4%	110	16%	13	2%	68	10%	110	16%	698
2002	167	25%	188	28%	23	3%	113	17%	10	1%	57	8%	123	18%	681
2003	145	24%	176	29%	20	3%	84	14%	7	1%	64	11%	102	17%	598
2004	178	27%	164	25%	21	3%	98	15%	12	2%	63	9%	132	20%	668
2005	183	28%	175	27%	20	3%	91	14%	4	1%	51	8%	131	20%	655
2006	211	33%	120	19%	17	3%	98	15%	6	1%	75	12%	106	17%	633
2007	168	32%	108	20%	14	3%	76	14%	10	2%	52	10%	100	19%	528
2008	131	31%	76	18%	19	5%	48	11%	4	1%	44	11%	97	23%	419
2009	148	35%	79	19%	11	3%	55	13%	3	1%	37	9%	94	22%	427
2010	109	28%	79	20%	10	3%	61	15%	6	2%	47	12%	82	21%	394

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

MSM = Male-to-Male Sex; IDU = Injection Drug Úse; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

Table 27. Deaths among persons reported with HIV/AIDS by exposure mode and year of death: Massachusetts¹, 2001–2010

	MSM					M/ U	нт	SX	Oth	ner	Pres. HTSX ²		Undeter- mined ³		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2001	85	21%	210	51%	19	5%	27	7%	5	1%	17	4%	48	12%	411
2002	74	20%	195	54%	15	4%	33	9%	9	2%	10	3%	25	7%	361
2003	66	17%	192	50%	17	4%	46	12%	8	2%	9	2%	45	12%	383
2004	65	19%	169	50%	18	5%	30	9%	7	2%	11	3%	37	11%	337
2005	56	18%	159	51%	15	5%	35	11%	2	1%	18	6%	27	9%	312
2006	63	20%	158	50%	18	6%	28	9%	3	1%	16	5%	27	9%	313
2007	64	23%	124	44%	25	9%	28	10%	6	2%	12	4%	24	8%	283
2008	55	20%	124	45%	15	5%	26	9%	4	1%	12	4%	39	14%	275
2009	39	15%	135	51%	8	3%	29	11%	1	<1%	15	6%	36	14%	263
2010	51	22%	111	48%	11	5%	15	6%	4	2%	7	3%	33	14%	232

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

²Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.